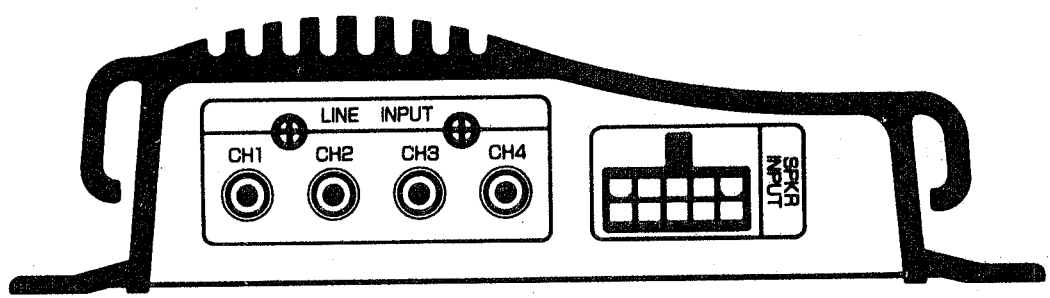
Sherwood

OPERATION MANUAL

XA-1141

4-CHANNEL AUTO SOUND AMPLIFIER



INTRODUCTION

Thank you for choosing Sherwood for your car stereo system. By doing so, you have opened the door to excellence in sound reproduction.

We, at Sherwood industries, have put together state-of-the-art circuit and component technology, along with the best car stereo reproduction equipment available in today's market.

Properly installed, your Sherwood product will give you years of the sound quality you have always wanted in car stereo.

FEATURES

Your new high fidelity Power Amplifier has a thin and flat design, to accommodate any style of floor mounting. The unit is designed for negative ground power system. Feature highlights are as follows:

- Four input channels (RCA type)
- Four speaker input channels
- Adjustable input sensitivity control for each pair of channels
- Remote power ON/OFF control
- LED power indicator
- High convection heat sink design

UNPACKING AND INSTALLATION

Please, unpack your unit carefully. We recommend that you save the carton box and packing material. They will be helpful you ever need to move the unit or, in the event you need to return it to service.

Your unit comes with a complete kit that includes 4 mounting screws.

1. Decide where you are going to install the unit. Refer to Fig. 1 for optimum placement.

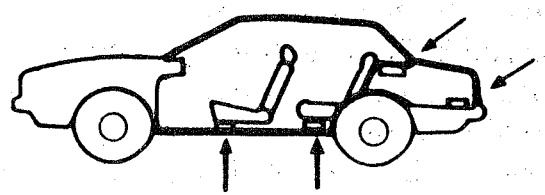


Fig. 1. Mounting Position

2. Once the proper location is secured use a felt tip pen to outline the 4 holes to be drilled for mounting (Fig. 2).
3. Use a 3.6mm diameter drill for the holes.
4. Secure the unit on the chassis using the self-tapping screws.

FOUR CHANNEL CONNECTION SYSTEM (Fig. 3 Use CH1, CH2, CH3 and CH4)

CAUTION: Before connecting any wire, TURN OFF the ignition key and, the power switch of your main cassette receiver.

1. **Speaker connections:** (To See Fig. 3)
   - Speaker 1: Connect the Green lead of CH1 to the speaker's plus (+) terminal and the Green/Black lead of CH1 to the speaker's minus (−) terminal.
   - Speaker 2: Connect the Gray lead of CH2 to the speaker's plus (+) terminal and the Gray/Black lead of CH2 to the speaker's minus (−) terminal.
   - Speaker 3: Connect the Blue lead of CH3 to the speaker's plus (+) terminal and the Blue/Black lead of CH3 to the speaker's minus (−) terminal.
   - Speaker 4: Connect the Brown lead of CH4 to the speaker's plus (+) terminal and the Brown/Black lead of CH4 to the speaker's minus (−) terminal.

   Caution: Do not commonly ground the negative wires of the speakers. This amplifier output has a floating ground.

For all speaker connections, make sure that the phasing is correct. The left, CH1 (or CH3), and right, CH2 (or CH4) channels of the amplifier must be connected to the proper speakers. Furthermore, all positive to positive and negative to negative wire connections must be maintained. Reversing any of these connections will result in the speaker cones moving out of phase, which causes bass cancellation.

2. **Speaker input connections:** If your cassette receiver has 4 BTL outputs, connect the output lead of the receiver to the speaker input located of on the front panel of amplifier.
   - Connect the Green lead of CH1 (+) to the front L (+) and the Green/Black lead of CH1 (−) to the front L (−) of the receiver.
   - Connect the Gray lead of CH2 (+) to the front R (+) and the Gray/Black lead of CH2 (−) to the front R (−) of the receiver.
   - Connect the Blue lead of CH3 (+) to the rear L (+) and the Blue/Black lead of CH3 (−) to the rear L (−) of the receiver.
   - Connect the Brown lead of CH4 (+) to the rear R (+) and the Brown/Black lead of CH4 (−) to the rear R (−) of the receiver.
   - Connect Black lead of the amplifier to the chassis ground of the receiver.

3. Power supply connections:

- Secure the BLACK WIRE (Ground) to the chassis by using a screw already attached to the chassis of the car. If a screw is not available near your amplifier, drill 3.6mm diameter hole on the chassis of the car and secure the ground lead using the self-tapping screw provided with the unit.
- Connect the RED WIRE (Battery +) directly to the positive lead of the battery. Do not connect it to the ignition key controlled positive lead.
- Connect the YELLOW WIRE (Remote ON/OFF) to the remote power control lead (or power antenna control lead) of your main cassette receiver. In this case, the power of the unit will be automatically controlled by the power switch of your main cassette receiver.

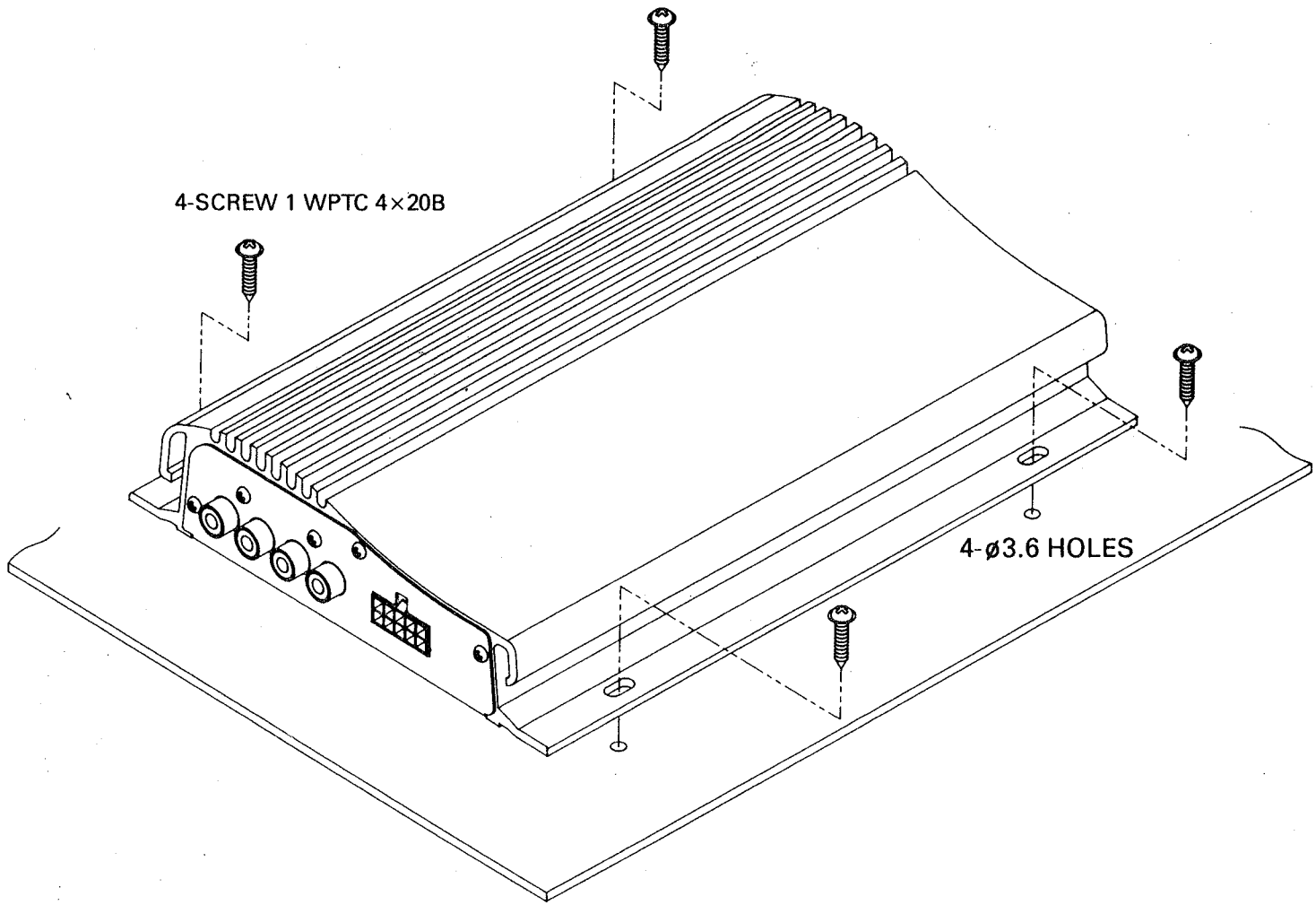
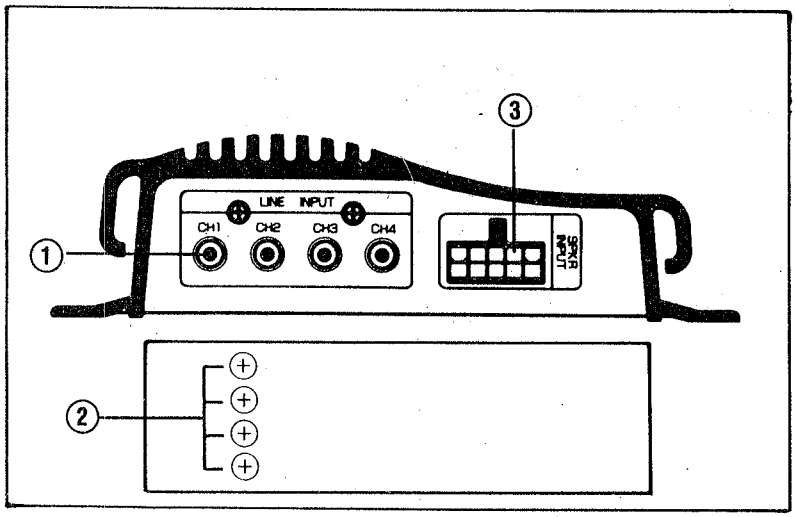


Fig. 2. On-Chassis Mounting

FRONT PANEL CONTROLS



① **Line input** — Connect the preamplifier jacks of your cassette receiver and/or equalizer to these input. See the speaker connections for details.

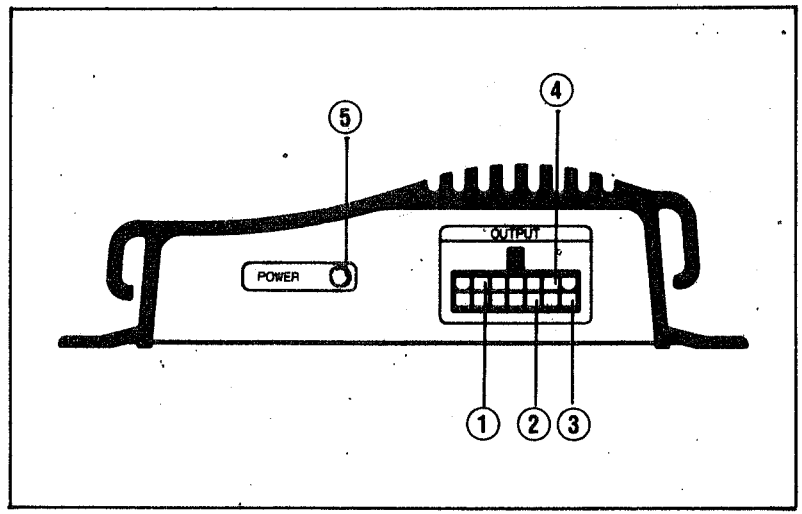
② **Adjustable Input Level Sensitivity Control** — These controls located in bottom allow you to individually adjust each channel's input level sensitivity from 200mV (mark: 'H') to 1V (mark: 'L'). You can now perfectly match your amplifier system with any component of your choice — cassette players, tuners, receiver, CDP, etc.

③ Speaker input — If your cassette receiver does not have RCA jacks, connect the speaker outputs of your receiver to the speaker input of the amplifier. You can adjust the input level sensitivity from 1V to 5V.

Caution

Do not use both line inputs and speaker inputs simultaneously.

REAR PANEL CONTROL



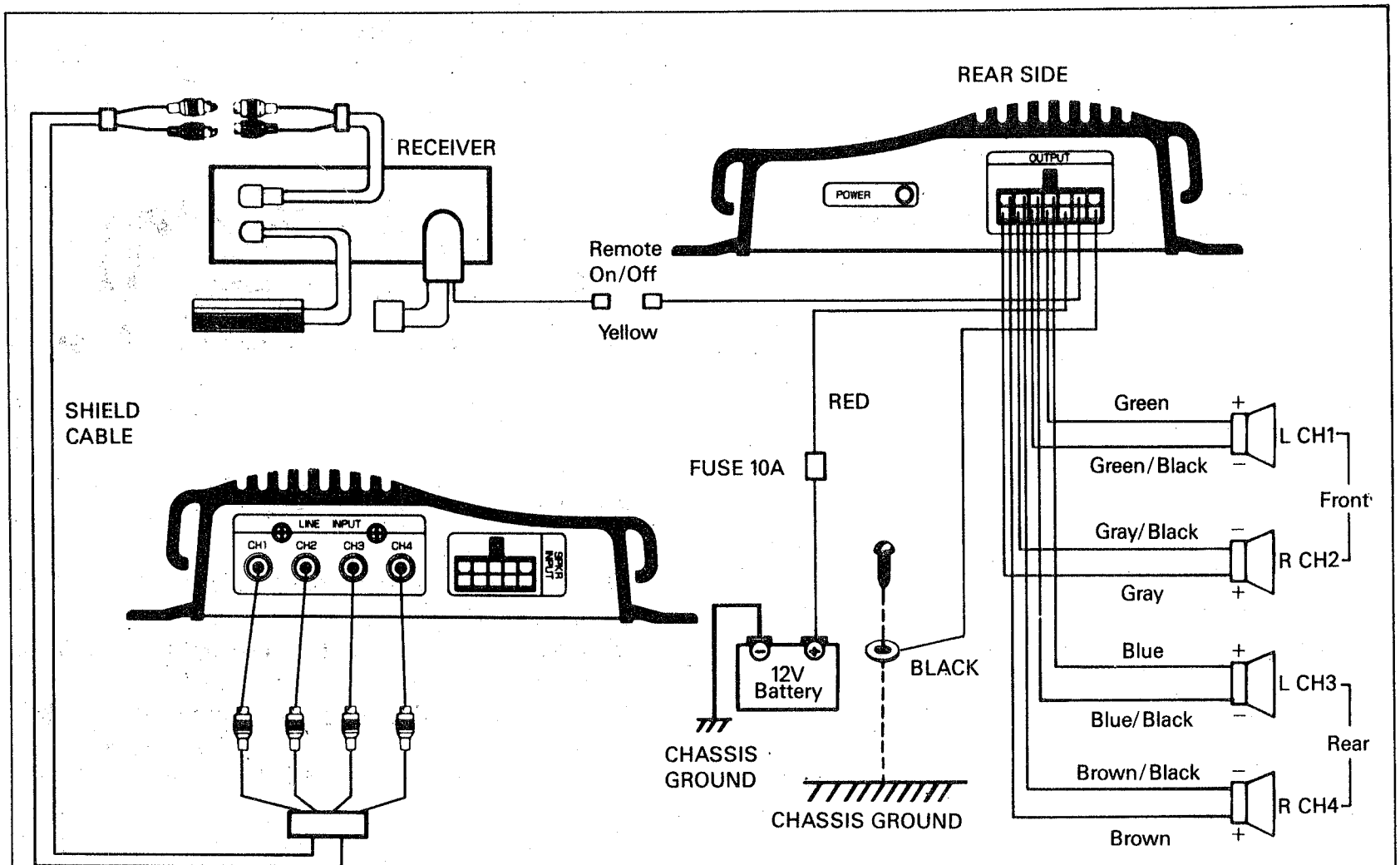
① **Speaker Connections** — See the speaker connection section for details. (Fig. 3-1)

② **Power Supply Connection (Red)** — Connect it to the battery B+ (12V).

③ **Chassis Ground Connection (Black)** — Connect it to the metal part of your car chassis.

④ **Remote Control Connection (Yellow)** — Connect it to the remote control of car receiver. The XA 1141 will turn on/off automatically with your car stereo receiver.

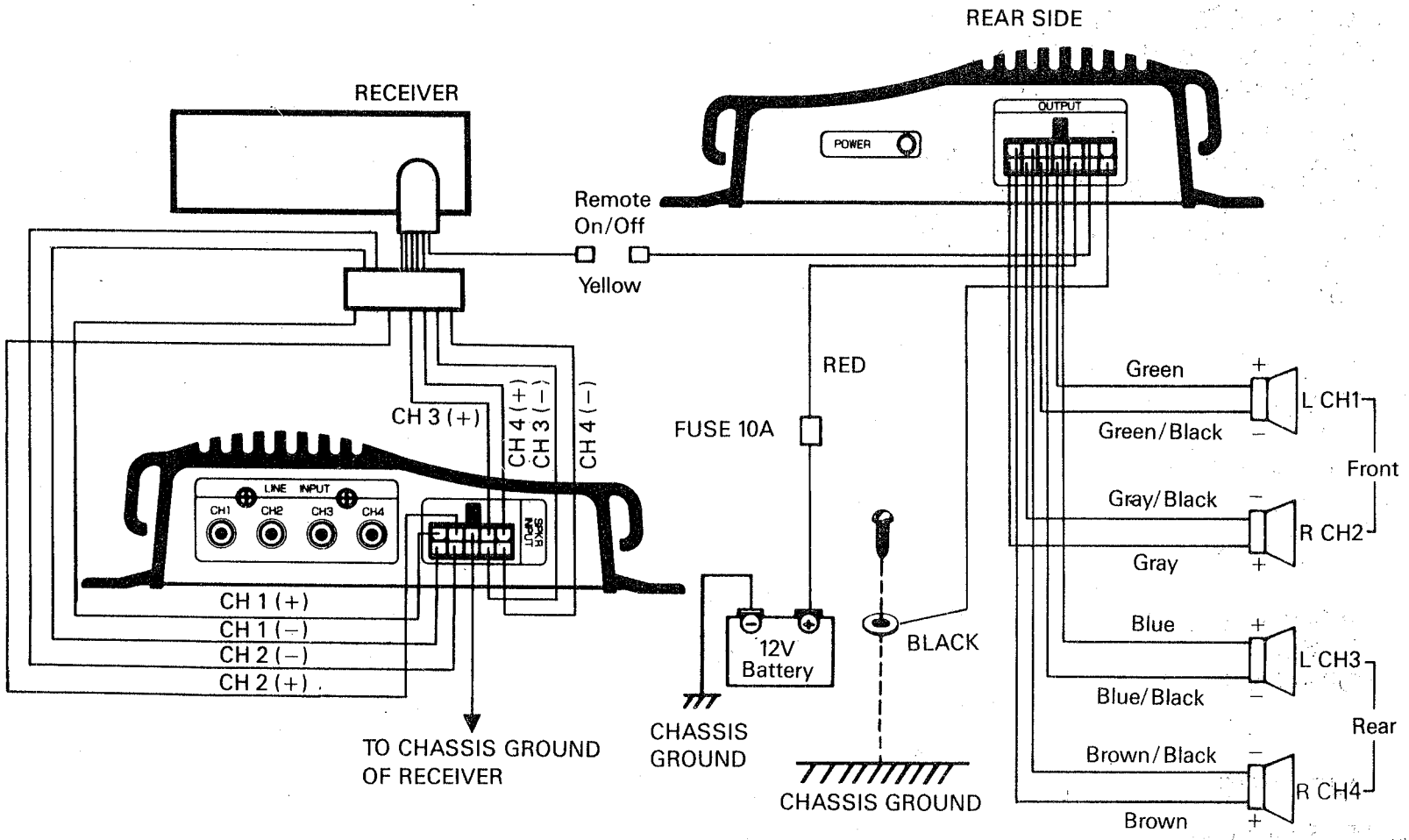
⑤ **Power Indicator** — Lights up when the unit is in operation.



* INSTALLATION PROCEDURE

1. BLACK WIRE → TO THE CHASSIS GROUND (A metal of car)
2. RED WIRE → TO THE BATTERY B+
3. YELLOW WIRE → TO THE CAR RECEIVER REMOTE WIRE.

Fig. 3-1. Line Input Connection



* INSTALLATION PROCEDURE

1. BLACK WIRE → TO THE CHASSIS GROUND (A metal of car)
2. RED WIRE → TO THE BATTERY B+
3. YELLOW WIRE → TO THE CAR RECEIVER REMOTE WIRE.

Fig. 3-2. Speaker Input Connection

SPECIFICATION

☐ AMPLIFIER SECTION

- ▫ AVERAGE POWER OUTPUT/CH INTO 4 OHMS
  @ 20Hz-20KHz, 0.5% THD _____ 14W
  @ 1KHz, 10% THD _____ 20W
- ▫ FREQUENCY RESPONSE (−3dB)16Hz~37KHz
- ▫ SIGNAL TO NOISE RATIO (IHF A) _____ 90dB
- ▫ INPUT SENSITIVITY/into 10k ohms load impedance
  HIGH _____ 200mV
  LOW _____ 1V
- ▫ SPEAKER INPUT SENSITIVITY
  HIGH _____ 1V
  LOW _____ 5V
- ▫ DAMPING FACTOR _____ 90

☐ GENERAL

- ▫ OPERATING VOLTAGE _____ DC 14.4V
  (10.8V~15.6V allowable range)
- ▫ SPEAKER IMPEDANCE ____ Minimum 4 ohms
- ▫ FUSES _____ 10A, Normal Blow
- ▫ DIMENSION, W _____ 165mm ($6\frac{1}{2}$)
  H _____ 37mm ($1\frac{23}{32}$)
  D _____ 230mm ($9\frac{1}{16}$)
- ▫ NET WEIGHT _____ 1.4Kg (3.1 lb)

NOTE: Specification & design are subject to change without notice for improvements.